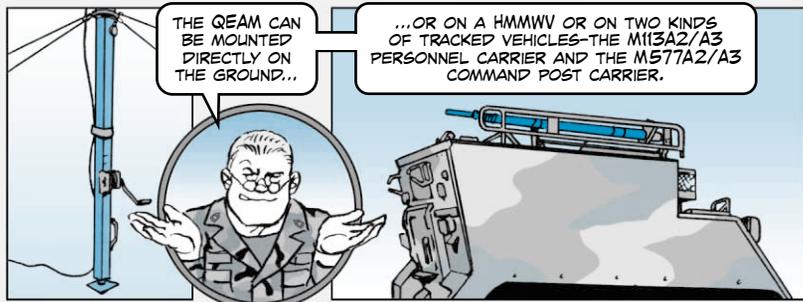


All About the QEAM

In little more than seven minutes, two soldiers can have the AB-1386/U, quick erect antenna mast (QEAM), NSN 5985-01-381-6341, up and doing its job. But all the minutes in a day won't be enough if preventive maintenance has not been done on the mast.

Here are some supply, safety and preventive maintenance tips that will keep you and the QEAM in the best of shape.

Parts



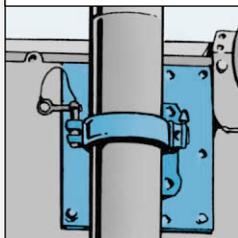
To mount the QEAM on a HMMWV, you'll need mount, MT-6967/G, NSN 5975-01-390-5770. To mount the QEAM on a tracked vehicle, you'll need mount, MT-6968/G, NSN 5975-01-390-9612.

The hand crank that drives the drive screw is easily mislaid and lost. Order a new one with NSN 5340-01-424-1503.

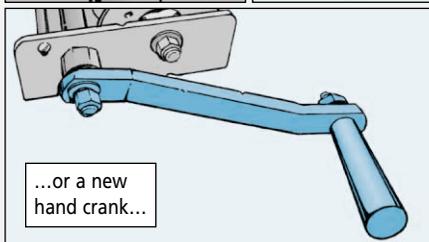
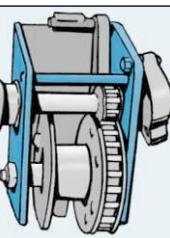
If the winch is needed, use NSN 5985-01-254-9557, to get a new one.

The gearbox that ensures the quick erecting is quick has several areas of maintenance. If the maintenance is not done, you'll need a new gearbox, NSN 3010-01-421-6827.

A special mount is needed for tracked vehicles



You can get a new winch...



...or a new hand crank...

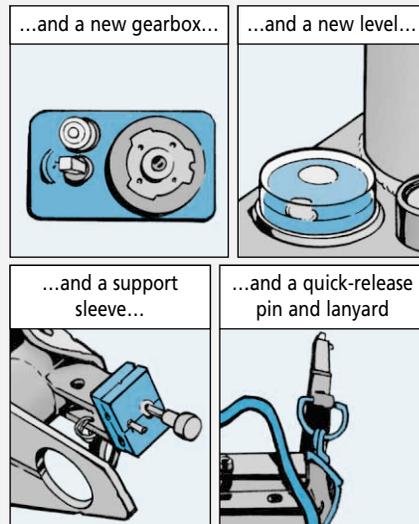
The level indicator on the gearbox often needs replacing. Get a new one with NSN 5210-01-424-7408.

The antenna to antenna base adapter comes by ordering NSN 5985-01-423-8576. You might also need the support sleeve, NSN 5985-01-072-4342.

If you break a quick-release pin, replace it with NSN 5315-00-628-3806 and lanyard, NSN 4010-01-421-0428.

Breaking a quick release pin might lead to a damaged tripod antenna. If so, order a new one with NSN 5985-01-424-7413.

The QEAM uses the same antenna elements and the same RF cable as the OE-254 antenna.



Safety

The number one cause of damage to the QEAM comes when a vehicle moves out with the mast raised. A raised mast, even just one section, can and will come tumbling down if the vehicle is on the move. And sometimes it comes tumbling down on the head of another soldier!

Make absolutely sure before a vehicle moves out—even just a short way—that the mast is completely collapsed and correctly stowed.

Whether raising or lowering the mast, to keep knots off your noggin, wear a helmet. To keep your eyes keen, wear goggles. And to keep your hands cut free, wear gloves.

It's easy with this antenna to forget wearing safety equipment because it is easily erected. But don't be fooled; easier does not mean safer!

Attaching and removing the antenna elements from the antenna mast is done with the help of the tripod antenna. That tripod lets the mast nest in an inclined position and allows for the removal of the quick-release pin. Sometimes that pin sticks and pressure must be released to free it or it will break! To release the pressure and free the pin, extend the top section of the mast.

As a final safety note, when you're using the AS-3166 antenna element to top off your mast, make sure you use safety tip caps. An unprotected tip can blind or kill a soldier.



Preventive Maintenance

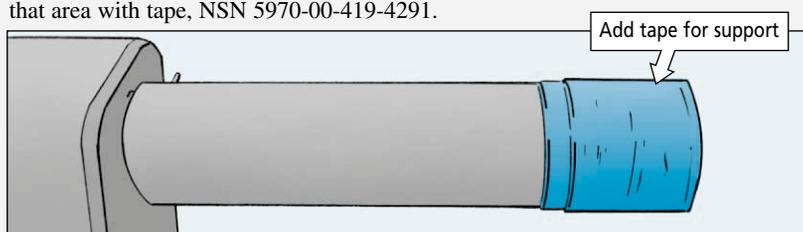
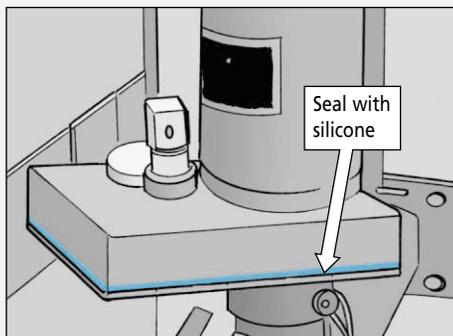
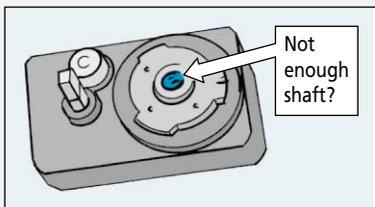
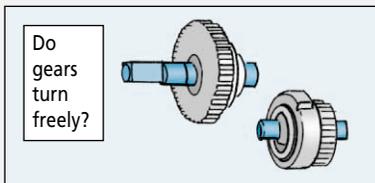
The QEAM won't go up and won't come down if the gearbox that raises and lowers it fails. The gears in the box must turn freely with little resistance.

One of the biggest problems on the gearbox is with the **output shaft failing to engage the drive screw**. Because the rear of the shaft is not reinforced, the shaft often falls back into the gearbox and draws level with the flange. When that happens, there is not enough shaft left to fit into the drive screw groove. You can crank the hand crank all you want, but you'll just be spinning the gears!

When this happens, you'll need a new gearbox, but there is a **field expedient fix**. Unscrew the bottom of the gearbox and push the output shaft up until enough of it is beyond the flange to engage the drive screw. Keep it in place by inserting wood, paper or metal behind the shaft. This fix will make the cranking a harder task, but the antenna will raise and lower.

When you have the bottom of the gearbox off, you might notice that the seal between the bottom and the box has not done a very good job. Chances are there is water or signs of water in the box. When you screw the bottom of the box back in place, put a line of silicone sealant, NSN 6850-00-880-7616, around the mating area to keep the inside of the box dry.

Check the top section of your mast for stress cracks. If you spot any, reinforce that area with tape, NSN 5970-00-419-4291.



Make sure you use the strain relief clamp to take the pressure off the RF cable connection so that the full weight of the cable is not pulling down on the connector.

PM on the winch is a must. Nothing on the winch breaks more often than the flange on the drum that anchors the end of the wire rope. It breaks because you work it and weaken it by bending it back to insert the lug end of the rope.

Once the flange is bent back out of position, it hits the winch housing with each rotation of the winch. It's not long until the flange is gone.

Check your winch. If the flange is gone, don't use it. You need a new winch. If the flange is bent back, carefully bend it back into place.

Before mounting the winch on the mast, check the caphead bolts. Make sure they're not bent or loose. Check for cracks. If you find bad bolts or cracks, don't use the mast.

The safety catch on the winch locks up the gear teeth and stops the antenna from retracting. It does that, that is, if it is not frozen in place by rust. Lube the safety catch each time you assemble the antenna and again before storage with silicone grease, NSN 9150-01-197-7693.

Don't overdo it. Just a little lube on your fingertips and rubbed on the catch assembly will do nicely.

Never lube the catch after the antenna is erected. You could accidentally release the catch!

Check the full length of each hoisting rope for broken wire in any of the strands or any other signs of serious wear. If there are broken strands or extensive wear, replace the rope.

